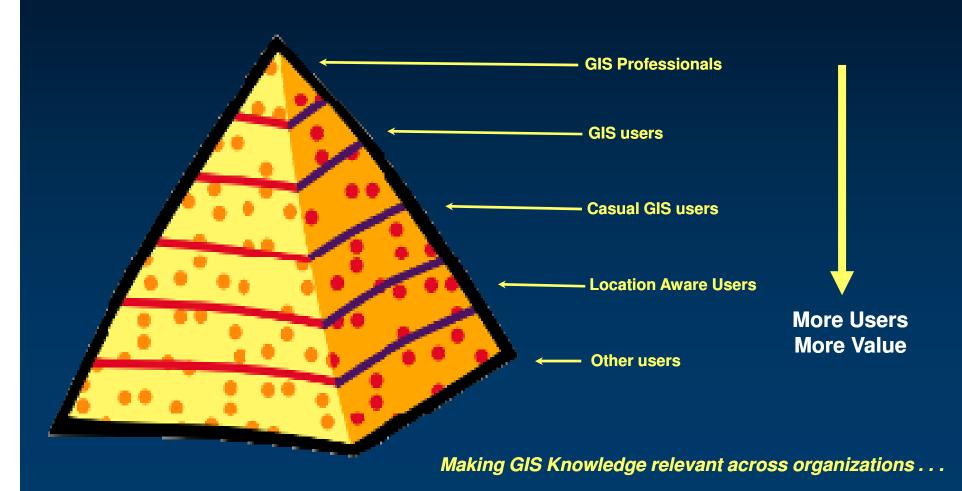
# **ArcGIS Server 9.3**

Tom Brenneman 6/13/08

#### **ArcGIS Server**

Sharing Geographic Knowledge



# **ArcGIS**

#### A Complete Geographic Information System



... For Authoring, Serving & Using Geographic Knowledge

#### **ArcGIS Server**

**Enterprise ready** 

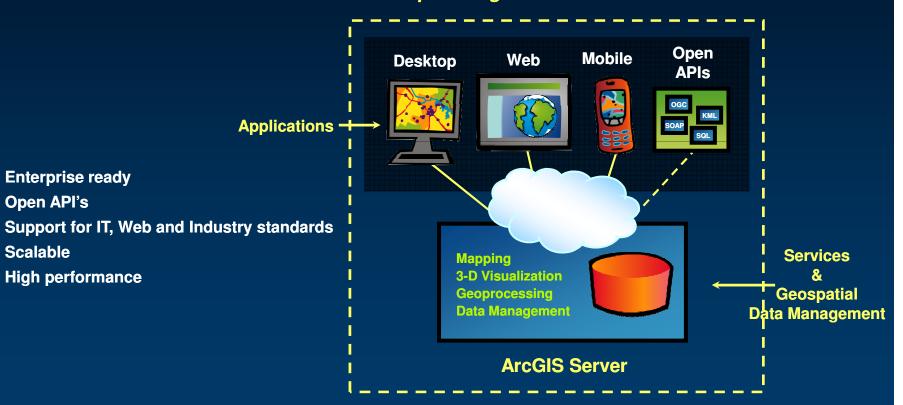
**High performance** 

**Open API's** 

Scalable

Complete & interoperable Server-Based GIS

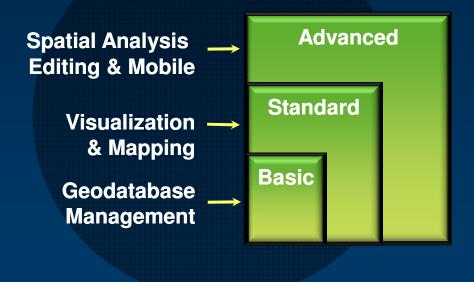
#### Empowering the Non-GIS Professional



Making GIS Knowledge Available To Anyone . . .

# 

#### **Level of Functionality**



# ArcGIS Server Functionality matrix

	Basic	Standard	Advanced
Geodatabase Management (ArcSDE)	✓	✓	✓
Geodatabase Replication	✓	✓	✓
Web Mapping		✓	✓
3D Services (Globe, KML)		✓	✓
ArcView-Level Geoprocessing		<b>✓</b>	✓
ArcInfo-Level Geoprocessing			<b>✓</b>
Web ADF (.NET or Java)		✓	✓
Mobile ADF (.NET)			✓
Enterprise Java Beans (Java)			<b>✓</b>
Web-Based Editing			<b>✓</b>
Support for Some Extensions *		<b>√</b>	<b>✓</b>
Support for All Extensions +			<b>✓</b>

<sup>\*</sup> Network, Data Interoperability extensions

<sup>\*</sup> Spatial, 3D extensions

# ArcGIS Server: Scaled by Capacity

	Workgroup	Enterprise
DBMS support	SQL Server Express	DB2, Informix, All SQL Server editions, Oracle , PostgreSQL
Operating systems support	Windows only	Windows, Solaris, Linux
Sockets	2 (single or dual core)	Unlimited (base license 4 core)
Architectural configurations	Direct connect only	Direct Connect and Application Server
Maximum Concurrent Clients	10	Unlimited
DBMS Database size limit	4 GB	Unlimited
DBMS Memory limit	1 GB	Unlimited

# **ArcGIS Server 9.2 Highlights**

- Services
  - Map (2D)
  - Globe (3D)
  - Geodata
  - Geoprocessing
  - Locator (geocoding)
  - Mobile Data
- Web applications
  - Out of the box template configurable with ArcGIS Server Manager
    - Web Editing, Geoprocessing, Geocoding, Search, Find, Navigation
  - NET and Java support
  - AJAX architecture
- ArcGIS Explorer integration
- Interoperability
  - WMS
  - SOAP
  - KML
- Mobile SDK

#### What's new in ArcGIS Server 9.3

- Enhanced Geospatial Services
  - Improved Map and Globe Caching
  - New Image Service
  - Enhanced KML delivery
  - Enhanced OGC Support
- More Accessible to Web Developers
  - Javascript and REST APIs for building Mashups
  - Improved Web ADFs
- More Usable
  - Enhanced Web Mapping Applications
  - Enhanced ArcGIS Server Manager
- More Easily Securable
  - Role Based Security for Services and Applications
- Better documented
  - New ArcGIS Resource Center
  - More help topics, samples etc

Improved Map and Globe caching tools

- Partial Cache and On Demand Caching for 2D and 3D services
  - Publish cached map faster
  - Saves times and disk space
- Support for caching vector globe layers on the server (3D)
- Better integration into ArcCatalog, Model Builder and Manager
  - Easier to automate cache management

New Image Service for serving Raster Data

- Similar to Map Services, but optimized for Raster
  - Faster than map services
  - More functional
- Not just pretty pictures
  - Clients can change renderers on the fly
  - Can use for Geoprocessing
- OGC support for WMS and WCS
- Image Server Extension enhances Image Services:
  - Publish more than one raster in the service (mosaicking)
  - Raster Catalogs
  - On the fly processing
  - Change mosaicking on the fly

Geoprocessing Services

- Faster Geoprocessing services
  - Faster initialization of python scripts
  - Faster connection to ArcSDE
  - New LocalJobsDirectory for optimized performance on multiple SOC deployments
- Better messaging and authoring experience
  - More samples and conceptual documentation
  - More meaningful errors while authoring and publishing

Better KML support

- More KML enabled services:
  - Maps
  - Map queries
  - Geoprocessing
  - Geolocators
- KML footprints
- Easier KML authoring
  - Better KML labeling (define properties in ArcMap)
  - ArcMap Legend to Google Earth

#### **Enhanced OGC Support**

- Enhanced WMS (Web Mapping Service) support
  - WMS 1.3.0 with SLD (Styled Layer Descriptors)
- New WCS (Web Coverage Service) support
  - WCS 1.0.0, 1.1.0, 1.1.1
- New WFS (Web Feature Service) support
  - WFS 1.1 (will support 1.0 in a Service Pack)

#### **More Accessible to Web Developers**

**New APIs for building Web Mashups** 

- Combine your organization's GIS content hosted in ArcGIS Server with content from Virtual Earth, Google Maps and ArcGIS Online.
- New lightweight APIs for building mashups :
  - ArcGIS Javascript API
  - ArcGIS JavaScript Extension for Google Maps
  - ArcGIS JavaScript Extension for Virtual Earth
  - ArcGIS Flex API (shortly after 9.3)
- No development or deployment license required
- Powered by backend ArcGIS Server REST services
- OnLine SDKs available

#### **More Accessible to Web Developers**

**Enhanced Web ADFs for building Applications** 

#### Enhanced .NET Web ADF

- Fully Leverages ASP.NET AJAX
- Integrated into VS 2005 and VS 2008
- Fully documented Javascript WebADF libraries
- Lighter Footprint, Better Performance
- Better SDK

#### Enhanced Java Web ADF

- Enhanced clustering support
- Support for JDK 5.0
- Integrated into Eclipse and NetBeans
- Customizable Web Editing task
- Better SDK
  - More samples

#### **More Usable**

#### **Improved Web Mapping Applications and ArcGIS Server Manager**

- Improved Web Mapping Application:
  - More responsive application
    - Better Cache/Dynamic blending for .Net WebADF
    - Fewer roundtrips to the server
  - Fewer clicks to see results of identify, query, and other tasks
  - New map navigation
  - Better organization of tasks
  - More interactive:
    - Maptips on results
    - Formatted info windows
    - More powerful client-side graphics capabilities
  - New Print task, back and next extent tools
- Improved ArcGIS Server Manager
  - Streamlined user experience
  - Layer and results advanced formatting

**Performance** 

**Usability** 

**Functionality** 

# More easily securable

Role based security for services and applications

- 9.3 Allows you to easily define a Role Based security model
- You can secure access to both Web Services and Web Applications
- Users and Roles can be managed in a Database or Directory Server
- You can leverage your web platform

#### **Better documented**

- More SDK topics
  - Both in Java and .Net Web ADF
  - New SOAP API SDK
- New ArcGIS Server Resource Center
  - Comprehensive help
    - Installation and configuration
    - Map Caching
    - Authoring geoprocessing models
    - Securing the server
    - Tuning ArcGIS Server deployments
  - Code Galleries
    - Provide source code of WebADF tasks
    - Every SDK has a code gallery for users to share code
    - Upload, add comments, vote

## Why would you upgrade?

9.3 is an incremental release of ArcGIS Server Same concepts, same story, but better

- Deploying fast cached services is easier
  - You'll save time, disk space and hardware
  - Your ArcGIS Server deployment will be more responsive and scalable
- Web applications are significantly better
  - Optimized WebADF applications
    - More functional, faster, many bugs resolved
- Developing Web Applications is easier
  - Create mashup style applications with JavaScript and Adobe Flex
- More open services (enhanced interoperability)
  - OGC, KML and REST enabled services

# Distributed address management example

